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ABSTRACT

A detailed description is provided of the variable school's demographic setting (DB), which is part of the analysis in phase I of the Evaluation of Practices in Individualized Schooling. The variable is defined; the questionnaires on which the variable is based are listed; the procedures used to scale the variable are explained; the distribution of the variable in the 156 individually guided education (IGE) schools which participated in Phase I is described; and the internal consistency of the variable is reported. (Author/MH)

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Technical Report No. 482

PROCEDURES USED IN PHASE I OF THE IGE EVALUATION TO SCALE THE VARIABLE SCHOOL'S DEMOGRAPHIC SETTING

by Gary G. Price, Terence C. Janicki, Judith A. Howard, Deborah M. Stewart, Anne E. Buchanan, and Thomas A. Romberg

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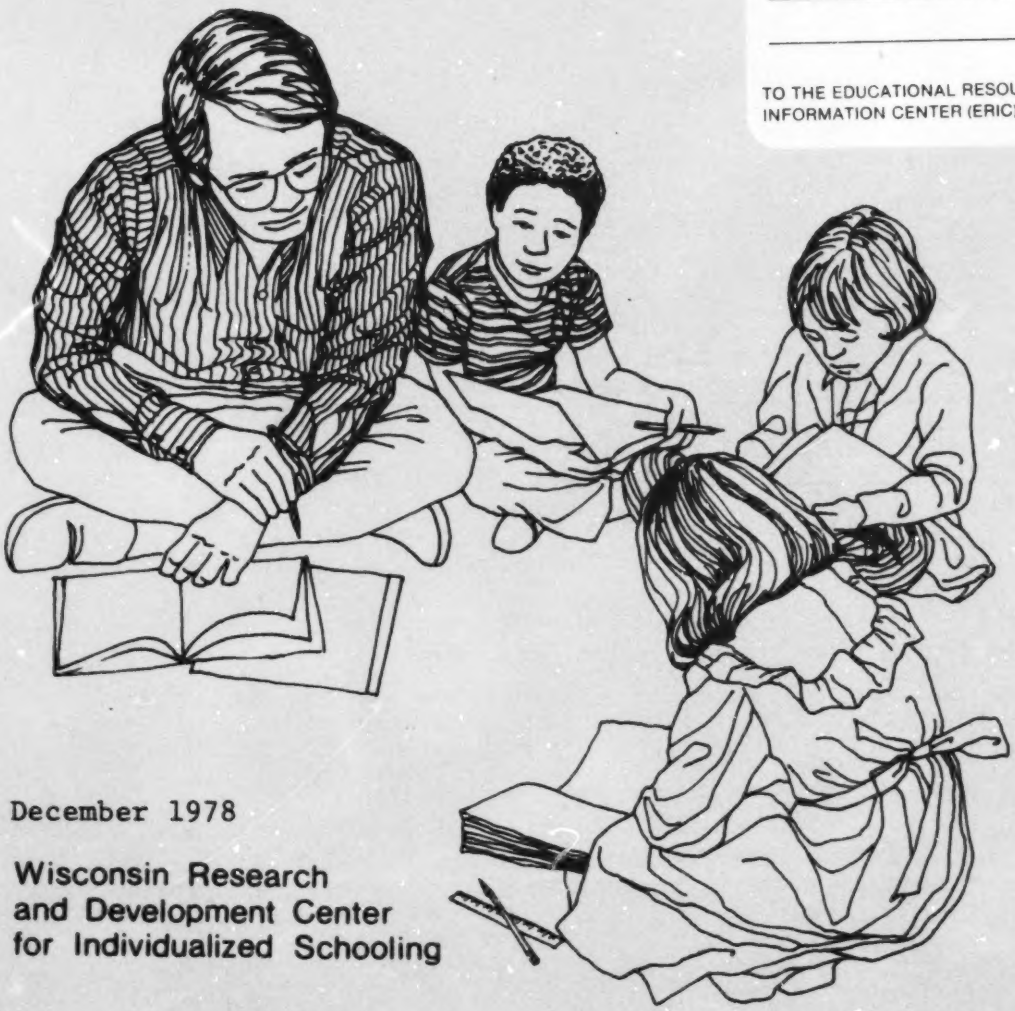

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Report from the Project on
Evaluation of Practices in Individualized Schooling

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Madison, Wisconsin

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- conducting and synthesizing research to clarify the processes of school-age children's learning and development
- conducting and synthesizing research to clarify effective approaches to teaching students basic skills and concepts
- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

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Abstract

This report provides a specific discussion of a variable that is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. The name of the variable is School's Demographic Setting. Included in this discussion is a verbal definition of the variable, a list of the questionnaire items on which the variable is based, a technical explanation of the procedures used to scale the variable, a description of the distribution of the variable in the 156 schools that participated in the Phase I study, and the internal consistency of the variable. Most readers would find it useful to read Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation, before beginning this one.

Procedures Used in Phase I of the IGE Evaluation to Scale the Variable School's Demographic Setting

This Technical Report provides a detailed description of the variable, School's Demographic Setting. The description includes a verbal definition of the variable, a list of the questionnaire items on which the variable was based, and a technical explanation of the procedures used to scale the variable. The report also contains a description of the distribution and the internal consistency of the variable. This variable, among others, is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. Phase I, which is a study of 156 Individually Guided Education (IGE) schools, is the large sample part of the overall evaluation effort. Further explanation of the Phase I study and an explanation of the relationship of this variable to the Phase I analysis is given in Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation.

Verbal Definition of the Variable

School's Demographic Setting is a simple measure of the community served by the school. As such, it is a proxy for experiences, skills, and attitudes that students acquire outside the school, but which affect outcomes of interest to educators. This measure was borrowed from the National Assessment of Educational Progress. The abbreviated name of the measure, as used in computing statements, is DB.

Explanation of Variable-naming Conventions

This measure, like most of the variables used in Phase I of the IGE evaluation, is a composite of items taken from several different instruments. The names and identification numbers of the respective instruments are given in Table 1, along with other information. The instruments numbered 11, 17, 51, 52, and 53 were given to all staff members[1] of each school studied, and were to be filled out individually. One copy of Instruments 22, 25, and 26 was given to each of the I&R units[2] studied (two I&R units from each school, one that included second grade students and one that included fifth grade students). These instruments were filled out by the unit as a group, after they reached consensus. Instru-ments 23 and 24 were given to teachers of the I&R units studied and they filled them out individually. One copy of Instruments 16 and 21 was given to the IIC of each school, and was filled out by the IIC as a group. Instrument 13, a questionnaire about the entire school, was filled out by the principal of the school.

In order to keep track of information collected from different sources, it was necessary to develop some complex conventions for naming variables. Those conventions are explained here. The abbreviated name of each item and each variable contains eight or fewer

---

[1] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the building in both the 1976-7 and 1977-8 school years.

[2] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the I&R unit in both the 1976-7 and 1977-8 school years and directly involved in planning instruction for the unit students in reading, math, or language arts.

Table 1

Instrument Identification

Test booklet	Instrument	Instrument number	File	Respondent
General staff questionnaire	IGE implementation survey	11	H	School staff members
	Staff background	17	H	School staff members
	Assumptions regarding conditions of schooling	51	H	School staff members
	Job satisfaction survey	52	H	School staff members
	Assumptions regarding learning and knowledge	53	H	School staff members
Unit staff questionnaire	I&R structure and function	22	A,B	Unit as a group
	Record keeping and regrouping	25	A,B	Unit as a group
	Instructional time and objectives	26	A,B	Unit as a group
	Role of staff teacher	23	F,G	All unit teachers
	Instructional practices	24	F,G	All unit teachers
IIC questionnaire	IIC structure and function	21	C	IIC as a group
	Demographic background	16	C	IIC as a group
IGE schools questionnaire	IGE schools questionnaire	13	C	Principal

characters, in order to be readable by computer. The first character of each item and variable name is a letter that indicates the case for whom the item or variable is a measure. In this discussion, variables include information from two or more questionnaire items or transformed information from one item. Items coming from a common source (i.e., the same respondents) were collected into a common data file whose name corresponds to the first letter in the names of all items collected in it. There were six such files. Those files, described in terms of the cases to which they pertain and in terms of their respective alphabetic codes, are:

A I&R units containing 2nd grade students (the I&R unit as a case).

B I&R units containing 5th grade students (the I&R unit as a case).

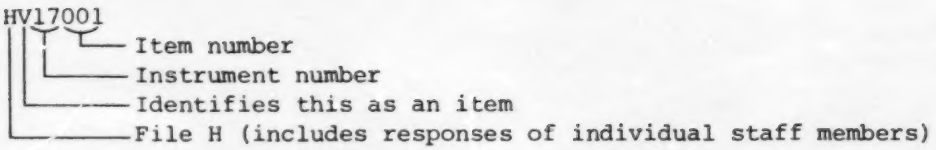
C The entire school as a case.

F Individual teachers of I&R units containing 2nd grade students.

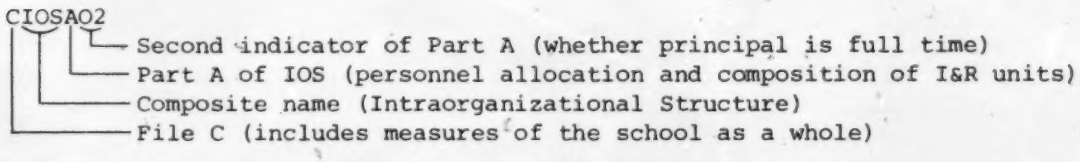
G Individual teachers of I&R units containing 5th grade students.

H Individual staff members employed by the school.

Item names. The second character in all item names is the letter "V," which distinguishes item names from names of other variables. The third and fourth characters in item names denote the number of the instrument of which the item is a part (see Table 1). The fifth, sixth, and seventh, and in some cases, eighth characters in item names contain the identification number of the item within the instrument. For example, Item number 1 from the Staff Background Questionnaire (Instrument 17), which was given to all members of the school staff, is named as follows:



Variable names. Variable names, like item names, begin with an alphabetic code that indicates the cases to which they pertain. Following that first character is an abbreviation of two to four characters used by the evaluation staff to denote the major composite of which the variable is a constituent. Subsequent characters identify the position of the variable in the scaling operation. For example, one of the constituents of the Intraorganizational Structure composite (IOS) is named as follows:


CIOSA02
Second indicator of Part A (whether principal is full time)
Part A of IOS (personnel allocation and composition of I&R units)
Composite name (Intraorganizational Structure)
File C (includes measures of the school as a whole)

Some of the composites are measures of the school as a whole, whereas others are specific to both the I&R unit (2nd or 5th grade) and the subject area (math or reading). Composites that pertain to the school as a whole are: Interorganizational Relations (IOR), Procedures Fostering Coordination and Improvement of the School Program (GOSB), General Staff Background (GSB), Intraorganizational Structure (IOS), Belief in Individual Differences (INDIV), View of Learning: Constructivism vs. Behaviorism (CVSB), the School's Demographic Setting (DB), General Implementation of the Instructional Programming Model (GOSA), and Teacher Job Satisfaction (JOBSAT).

Composites that are specific to I&R unit and subject area are: Utilization of Curriculum Resources (UCR), Information Acquisition (IA), Individualization of Instructional Decisions (IDM), Management of Grouping and of Instructional Continuity (IE), Allocated Learning Time (ALT), and measures of student achievement. In the technical explanations of scaling, composites specific to the 2nd grade I&R unit begin with the letter "A"; composites specific to the 5th grade I&R unit begin with the letter "B." For brevity, a lower case "z" is used as the first letter wherever the explanation of scaling applies to both the 2nd and 5th grade I&R units.

Scaling Procedure

DB, School's Demographic Setting, is measured by only one item, CV16001, which is a description of the community in which the school serves. The item is included in Appendix A, and the SPSS commands for scaling DB are included in Appendix B. The only change effected in the IIC group response to item CV16001 is in the values assigned to response codes. The reassigned values were obtained directly from data generated by the National Assessment of Educational Progress (NAEP) Math Fundamentals Research (January 1975), which reported median differences from national performance levels by size and type of community. High metropolitan is assigned a seven, low metropolitan a one, urban fringe a six, main big city a three, medium city a five, small place a minus four, and extreme rural a two.

Distribution of the Scaled Composite

Summary statistics for School's Demographic Setting in the Phase I sample of 156 schools are: mean = 4.096; SD = 1.502; median = 4.225; actual minimum = 1; logical minimum = 1; actual maximum = 7.0; and logical maximum = 7.0. A histogram for DB is included in Figure 1. Since this is a one item variable a measure of internal consistency cannot be calculated.

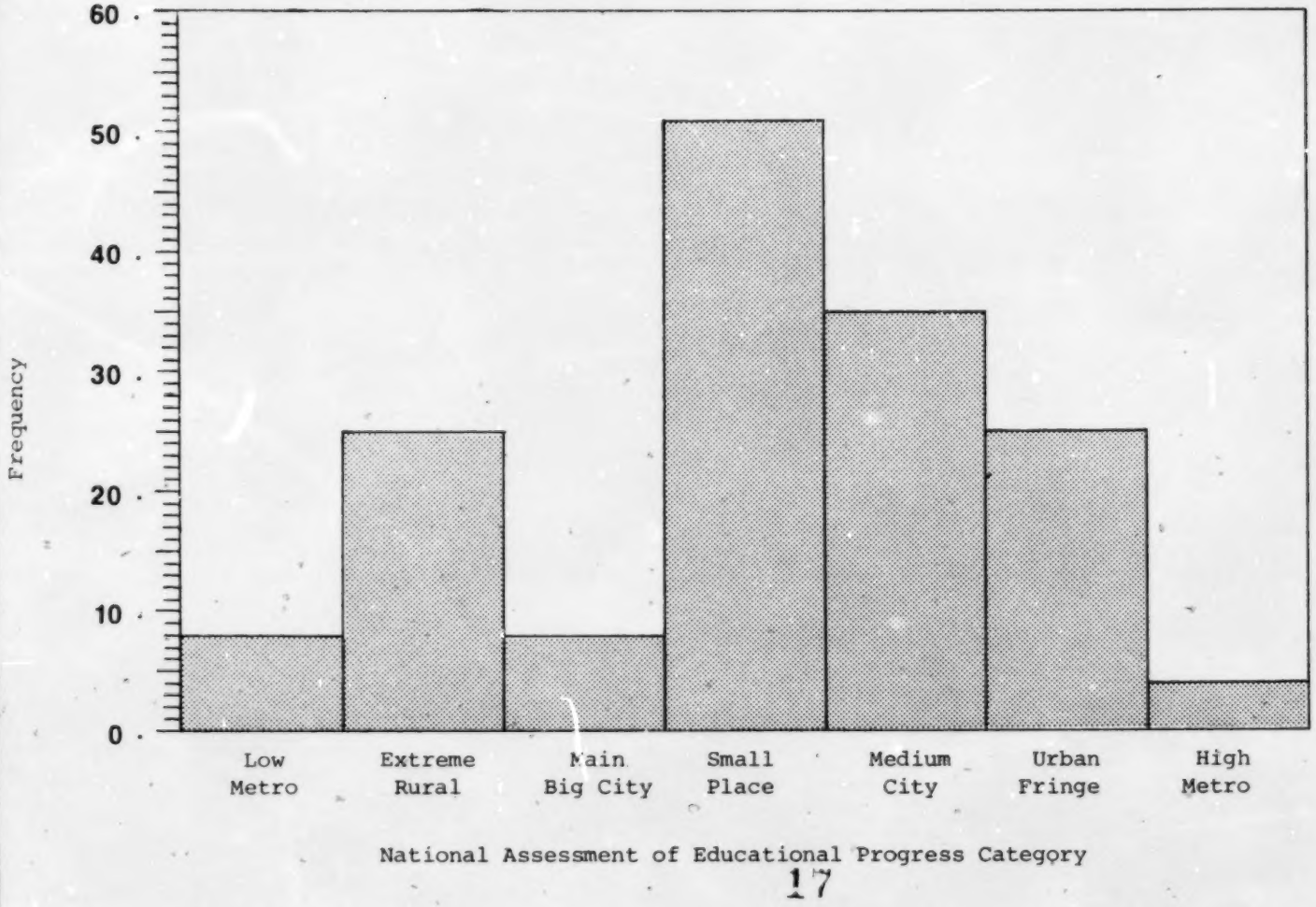


Figure 1. School's demographic setting.

Appendix A: Item Pool Selected

File C: School as Case

CV16001

CV16001 Please select the phrase below which best describes your community *or* the attendance area which your school serves. Select the *one* best phrase.

(0) *High metro.* Area in city with a population greater than 150,000 where a high proportion of the residents are in professional or managerial positions.

(1) *Low metro.* Area in city with a population greater than 150,000 where a high proportion of the residents are on welfare or are not regularly employed.

(2) *Urban fringe.* Community within the metropolitan area of a city with a population greater than 200,000, outside the city limits and thus not in the high or low metro groups.

(3) *Main big city.* Community within the city limits of a city with a population over 200,000 and not included in the high or low metro groups.

(4) *Medium city.* City with population between 25,000 and 200,000.

(5) *Small place.* Community with a population of less than 25,000.

(6) *Extreme rural.* Community with a population under 3,500 where most of the residents are farmers or farm workers.

Appendix B: SPSS Commands for DB

Operations to do in CSCHOOL

```
COMPUTE          CDB1 = CV16001
RECODE           CDB1 (7=7) (1=1) (2=6) (3=3) (4=5) (5=4)
                      (6=2)
VALUE LABELS     CDB1 (1) LOW METRO (2) EXTREME RURAL
                      (3) MAIN BIG CITY (4) SMALL PLACE
                      (5) MEDIUM CITY (6) URBAN FRINGE
                      (7) HIGH METRO
VAR LABELS       CDB1, DEMOGRAPHIC BACKGROUND: SCHOOL SETTING
ASSIGN MISSING   CDB1 (-99)
```

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